

PATENT

## ABSTRACT

The invention is directed to nucleic acid sequences which encode polypeptides having PhzO activity, namely, the ability to convert phenazine-1-carboxylic acid to a 2-hydroxylated phenazine, and isolated polypeptides having this activity. The invention is also directed to recombinant nucleic acid molecules, vectors, and host cells including the nucleic acid sequences as well as methods for producing and using the polypeptides, including expression in bacterial or plant cells to inhibit fungal pathogens.